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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,980	03/15/2000	Peter Newman	4467	9729

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EXAMINER

ENG, DAVID Y

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/526,980

Applicant(s)

NEWMAN ET AL.

Examiner

DAVID Y. ENG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7.11/03; 1.2.7/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicants are requested to update the status of related application on page 1 of the specification.

The replacement sheet of Figure 5 has been entered. The support can be found in line 18, page 19 of the specification.

The IDS filed on July 30, 2003, November 12, 2003, January 26, 2004, February 24, 2004 and July 6 2004 have been attached to this Office action.

The active claims are 1-32.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to disclose method steps for creating a software architecture suitable for implementing a virtual server system supporting overlapping private network address spaces.

Claims 7-12, 15, 16, 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 7 and 10, it appears that a plurality of multiplexing/de-multiplexing are required, one for each host server computer. See Figure 6 of the specification.

Claim 12 fails to recite how the tables and the physical interfaces are related to managing virtual services. Further, the physical interfaces have not been positively recited.

Scope of claim 15 is not understood. It is not clear what a layer two tunnel identifier is.

With respect to claim 23, it is not seen how the steps recited therein are related to the steps of parent claims.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-18 and 20-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrera (USP 6,247,057) in view of Herzog (USP 6,425,003).

With respect to claims 1, 3-5, 7, 8, 10-11, 13, 16, 20-22, 29 and 31, see at least Figures 1-8 and the corresponding description in Barrera. Barrera teaches a system (Figure 1) for providing private network services (virtual service 42(1) and virtual service 42(2)) using private addresses (inherent) in a location remote (see "remote —client" in line 42 of column 1, line 29 of column 8 and lines 13-18 of column 10) from private network users (client 24(1) and 24(2)), comprising:

a host computer (22) executing a plurality of private virtual servers (virtual service 42(1) and virtual service 42(2), see lines 1-3 of column 5), each private virtual server

associated with a private address space (see "address space" in line 7-8 of column 2) and providing private network services (virtual network services) to the private network's users (clients), the private network's users located remotely from the private virtual server, wherein a first private network address space associated with a first virtual server and a second private network address space associated with a second virtual server overlap; and

a multiplexing/de-multiplexing mechanism (40 and 46 in figure 1) executed by the host computer, and communicatively coupled to a network (26, line 15 of column 4) to receive a signal from a private network user and to route the received signal to the private virtual server associated with the private network user's network.

Barreta does not make clear whether address spaces of virtual servers are overlapping (claims 1, 3-5, 8, 13, 16, 20-22, 29 and 31) and whether tunneling (claims 2, 9-12, 14, 15, 17, 18, 23-28, 30 and 32) is employed. Herzog teaches a network communication system having Service Selection Gateway allowing overlapping address spaces (see lines 17-18 of column 1). Herzog also teaches tunneling (see line 34-35 of column 3). From the teaching of Herzog, it would have been obvious to a person of ordinary skill in the art to incorporate tunneling in Barreta such that the virtual servers have an effect of private server and such that virtual servers are allowed to have overlapping address spaces.

With respect to claim 2-5, 18, signal switching or routing is inherent in network communication.

With respect to claim 6, see EMS 46 in Figure 1 and tables in Figure 6 and the corresponding description.

With respect to claim 7, Figure 8 in Barreta also teaches a system having a plurality of hosts (servers 1-4) each of which is for implementing a plurality of virtual servers.

With respect to claims 12 and 32 see EMS 46 in Figure 1 and tables in Figure 6 and the corresponding description).

With respect to claim 21, it is inherent in virtual network that privately addressed transmission does not include a registered IP address.

With respect to claim 22, encapsulation is inherent in tunnel transmission.

With respect to claims 22, 25-28, various types of tunnel protocol are well known in the art as admitted by Applicants on page 27 of the specification.

In the communication filed on 7/6/2004, Applicants contended that the claimed invention enables one IP address to be used to refer to multiple services by routing signals with the same destination IP address to different private servers where the signals come from users who are associated with different private networks. Firstly, it is not seen how the invention as recited is capability to do that. Secondly, the claims fail to recite that the invention has such capability. Thirdly, Applicants fail to explain why the invention of Barrera as modified by Herzog is different from the claimed invention, (for example, what component is missing?). Applicants fail to explain why the prior teaching is not capable of doing the same thing as argued by Applicants. Note that the claims merely recite a host computer for implementing a plurality a plurality of virtual servers

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and a MUX/DEMUX. The combined teaching of Barrera and Herzog has all the claimed components. In Barrera, tables (see Figure 6) are being used for addressing (see lines 1-12 of column 2 and the description of Figure 6 in column 9). The multiplexing/de-multiplexing mechanism is merely recited for routing a received signal from a user to a virtual server. See Figure 1 of Barrera. The mapper 40 is capable of doing so. Signals from the two clients are routed to virtual services 42(1 and 2).

Claim 19 is allowed.

Any inquiry concerning this communication should be directed to DAVID Y. ENG at telephone number 703-305-9691.

A handwritten signature in black ink, appearing to read 'David Y. Eng', with a stylized, flowing script.

DAVID Y. ENG
PRIMARY EXAMINER